

CLAIMS

What is claimed is:

1. An integrated tagging system for an electronically controlled shock absorber comprising:

a shock absorber having damping characteristics;

an electronic control module in electronic communication with said shock absorber for controlling said shock absorber; and

a memory device integrally formed with said shock absorber and in electronic communication with said electronic control module, said memory device storing calibration data containing said damping characteristics of said shock absorber;

wherein said electronic control module accesses said memory device and reads said calibration data in order to control said shock absorber.

2. The tagging system of Claim 1, wherein said memory device includes a unique identification number for said shock absorber, said unique identification number accessible by said electronic control module.

3. The tagging system of Claim 1, wherein said damping characteristics include a tested performance of said shock absorber.

4. The tagging system of Claim 1, wherein said damping characteristics include a deviation from an expected performance of similarly constructed shock absorbers.

5. The tagging system of Claim 1, wherein said memory device is an electronic device containing non-volatile memory.

6. A shock absorber system for use in a motor vehicle comprising:  
a shock absorber adapted to be mounted to the motor vehicle;  
an electronic controller adapted to be mounted within the motor vehicle for controlling said shock absorber;  
a transmission line coupled between said shock absorber and said electronic controller for communicating electronic signals between said electronic controller and said shock absorber; and  
a memory device in communication with said electronic controller, said memory device storing calibration data for said shock absorber.

7. The shock absorber of Claim 6, wherein said memory device is integrally connected to said shock absorber such that said memory device cannot be separated from said shock absorber.

8. The shock absorber of Claim 6, wherein said transmission line includes a connector and said memory device is integrally formed with said connector.

9. The shock absorber of Claim 6l wherein said memory device is disposed within said transmission line.

10. The shock absorber of Claim 6, wherein said transmission line is selected from one of a group consisting of a T1 line, a I2C bus, and a serial peripheral interface.

11. The shock absorber of Claim 6, wherein said memory device is electronically coupled to said transmission line.

12. The shock absorber system of Claim 6, wherein said shock absorber includes a pressure cylinder forming a working chamber having first and second portions operable to store damping fluid, a first valve member disposed within said pressure cylinder having a first plurality of flow passages, a second valve member disposed within said pressure cylinder having a second plurality of flow passages, said second valve member being displaceable with respect to said first valve member to vary the flow of damping fluid between said first and second portions of said working chamber, and an electronically

controlled servo to displace said second valve member with respect to said first valve member.

13. The shock absorber system of Claim 12, wherein said memory device is integrally formed within said electronically controlled servo.

14. The shock absorber of Claim 6, wherein said memory device includes a unique identification number for said shock absorber, said unique identification number accessible by said electronic control module.

15. The tagging system of Claim 6, wherein said damping characteristics include a tested performance of said shock absorber.

16. The tagging system of Claim 6, wherein said damping characteristics include a deviation from an expected performance of similarly constructed shock absorbers.

17. A method for tagging an electronically controlled shock absorber for use in a motor vehicle, the method comprising:

providing an electronic shock absorber in communication with an electronic controller;

providing a memory device integrally mounted to said shock absorber;

testing said shock absorber before installation into the motor vehicle to determine calibration data for said shock absorber; storing said calibration data in said memory device; and accessing said calibration data using said electronic controller to calibrate said shock absorber.

18. The method of Claim 17, further comprising assigning a unique identification number to said shock absorber and storing said unique identification number in said memory device

19. The method of Claim 18, further comprising accessing said unique identification number using said electronic controller to identify said shock absorber.